

FORMULA No. 640—A Clear Liquid

For Waterproofing and Preserving Stone, Cast Stone, Concrete, Concrete Blocks, Cement Mortar, Lime or Cement Stucco, Tile, Brick, Plaster, Wood, Wall Board, — in fact any material which will absorb it.

FORMULA No. 640

is a clear transparent liquid, made up of certain compounds dissolved in a hydrocarbon base. The hydrocarbon carries these solids in solution into the stone, evaporates, leaving the voids of the stone filled with a hard mass thus preventing the transmission of water, and renders the surface resistant to acids, alkalis, fats, or petroleum products. The compounds are gotten into solution through temperature and pressure. It cost thousands of dollars and years of experimentation to evolve this formula. Will not freeze nor deteriorate in storage.

PENETRATION

Formula No. 640 has almost unlimited penetration. It is drawn into the voids by capillary attraction due to the affinity which it has for stone. Tests have proved that it will penetrate a 1 1/4" slab of Indiana limestone and collect in drops on the under side. It also creeps or "fans out" into the stone.

APPLICATION

Use Formula No. 640 just as it comes from the container. Application may be made by a spray, brush, or it may be floated on a floor and spread with a squeegee or mop. It is harmless to hands.

COVERING CAPACITY

For masonry surfaces above grade, we recommend a two coat application requiring one gallon for each 75 to 100 square feet for the two coats. On the inside below grade, allow one gallon for each 50 square feet for the three coats recommended.

MATERIALS WHICH MAY BE TREATED

Any material into which Formula No. 640 will penetrate may be treated successfully.

OVER WATER BASE AND UNDER OIL BASE PAINTS

Any powder mixed with water and applied to a masonry surface is a cement paint and should be applied first, cured properly, thoroughly dried, and Formula No. 640 applied over it. Oil base paints and enamels should be applied after the wall has been treated with Formula No. 640.

BASEMENTS

Below grade structures can be made watertight with Formula No. 640 applied on the inside at a minimum of expense. The following precautions should be observed:

1. Hairline Cracks

These cracks are usually due to shrinkage because of improper curing. They are mostly surface cracks and do not extend an appreciable distance into the concrete. Formula No. 640 will penetrate all the way to the bottom of these cracks sealing around them. Hence no special preparatory cementing is necessary.

2. Cleavage Cracks

When new concrete is placed on old, hardened concrete, the bond is defective and water will seep through under pressure. This happens when a wall is placed on top of a concrete floor, or when part of a monolithic construction is interrupted in construction. The only remedy is to rake out the joint to a depth of about a half an inch and reseal with a new cement mix which must be cured properly.

3. Settlement Cracks

Some years after construction, settlement cracks may appear. These must be treated the same as cleavage cracks.

4. Porosity

The improper manufacture of cement blocks causes the most trouble. If the blocks are too lean in cement, the aggregate not properly graded, and they are not properly tamped and cured, the blocks will be of such high porosity and many times with interlinking holes through the blocks, it is necessary to apply a cement wash coat or a cement paint to the blocks before waterproofing. This applies also to coarse light weight aggregates. Above grade, Formula No. 640 will render these blocks sufficiently repellent to prevent the seepage of water, but under hydrostatic head, guaranteed results can only be obtained by using a cement slurry or a cement paint. While this condition occurs very infrequently since most cement blocks are of excellent quality, nevertheless it is recommended that a concrete block wall subjected to a considerable hydrostatic head be carefully inspected for density, holes, and mortar failure.

BRICK

We have seen brick walls, newly repointed, which leaked badly, rendered absolutely watertight with Formula No. 640 at nominal expense.

WHAT FORMULA No. 640 WILL NOT DO

1. It will not penetrate through oil paint.
2. It will not fill cracks except hairline. See detailed instructions.
3. It should not be applied at a temperature of less than 60 degrees.
4. It should not be applied over bituminous compounds.

EFFLORESCENCE

The unsightly appearance of salts depositing on the surface can be stopped positively with Formula No. 640 because it prevents water from passing either in or out of the surface.

ACIDS

Formula No. 640 does not react with acids. To protect various surfaces from acids, see our special folder on "The Resistance of Formula No. 640 to Acids".

ALKALIS

Leakage of hot caustic through concrete floors has been stopped with the application of Formula No. 640.

DUSTING

Formula No. 640 prevents the dusting of concrete floors subjected to heavy traffic. Floors, so treated, will resist the penetration of oil from sweeping compounds and are easier to clean.

PERMANENCE

The solids in Formula No. 640 are inert. By penetrating deeply into the masonry surface—one inch or more, the permanence of the seal will far exceed any mere surface treatment.

METAL LATH and REINFORCEMENT IRON

By stopping the absorption of water, metal reinforcements in concrete will not rust which causes staining, and even spalling, as well as a loss of strength.

HOLDS 1250 lbs. WATER PRESSURE

A twenty foot concrete tank treated over five years ago with Formula No. 640 in which drinking water is stored has not leaked a drop although the pressure on the bottom part is 1250 pounds per square foot.

WHAT FORMULA No. 640 DOES NOT CONTAIN

There is no paraffin, no sodium silicate, no fluosilicate, no aluminum or calcium stearate, no oil of any kind in Formula No. 640.

Formula No. 640 is not a surface treatment; it is not necessary to apply it to the pressure side; its application requires no complicated technique; it is applied three times as fast as paint; it penetrates wherever water will penetrate, and deeper, sets, and becomes an integral part of the material.

Formula No. 640

SPECIFICATIONS—DIRECTIONS

PREPARING THE SURFACE

Clean the surface thoroughly. Remove any old oil paint. Wire brush away loose particles. If a 20% muriatic acid solution is brushed on the surface to remove efflorescence and bleach out stains be sure to follow with a clear water wash. Use Hayproc Oil & Grease Cutter to remove heavy oil and grease deposits. To clean large areas sandblasting is recommended. Fill all small cracks (except hairline) and holes with a cement paste (Portland cement and water), or Plaster of Paris (Calcium Sulphate). If the cracks are more than ½ inch wide use a mortar of one part cement and two parts sand with very little water—enough to make a thick paste, but not so much that free water may be squeezed out by compressing with the hand. Be sure the area to be filled is clean, and all sections are wide enough to admit the mortar. Thoroughly saturate the opening and surrounding area with water. While still damp, but no free water can be seen, pack in the mortar. Slight vibration will help compact the mortar on floors. Finish with a trowel. As soon as the mortar has taken its initial set, so it will not show brush marks, sprinkle well with water, and then immediately spray or brush a light coat of Formula No. 640 over the mortar and for several inches to either side. This seals the water in and allows the cement to cure properly. Please note that this operation merely coats the wet surface—it does not penetrate and hence does not waterproof. If damp coverings are used instead of Formula No. 640, keep them saturated with water for at least 72 hours. In either case allow the mortar to cure for at least seven days (14 would be better) before

waterproofing with Formula No. 640. Wait for the area to dry thoroughly before application.

DIRECTIONS

Be sure the surface is clean and dry, and that all cracks, holes, and open joints are cemented up, properly cured, and allowed to dry. Brush, spray, squeegee, or mop Formula No. 640 on surface until the penetration slows down to a point where the surface remains wet for 15 seconds after application is stopped.

Use the number of applications as indicated in specifications. Allow about twenty-four hours between applications or in warm well ventilated places, less time may suffice. When the surface has taken on its original appearance another coat may be applied.

Formula No. 640 will waterproof any material which it can penetrate. The longer Formula No. 640 is in contact with the surface the deeper the penetration.

IMPORTANT: Must be applied at a temperature of 60° F. or higher.

CAUTION: Will burn if exposed directly to a flame, otherwise non-hazardous.

MATERIALS

Formula No. 640 sold by the Haynes Products Company, Omaha 3, Nebraska. Apply exactly as it comes from the container. The temperature, at time of application, should be 60 degrees F. or higher.

APPLICATION

A normal application of Formula No. 640 means keeping the surface wet with excess liquid for at least 15 seconds.

1. One coat application: One coat is sufficient to prime wood, plaster, dense stone, brick, or concrete for oil paint. We recommend adding 5% to 10% of Formula No. 640 to the paint. This pulls the paint into the pores; prevents bleeding of the oils in the paint, or their saponification by the alkalis in the cement, and retards their oxidation. Coverage: 200 square feet per gallon.
2. Two coat application: Fits most conditions above grade where it can be applied to the pressure side, such as the outside of buildings and on floors. Usually sufficient to prevent floor dusting. Coverage: 75 to 100 square feet per gallon for the two coats.
3. Three coat application: Indicated below grade where the walls and floors are to be waterproofed on the inside against a hydrostatic head on the outside; also to resist dilute acids and alkalis. Where the building material is unusually porous, outside and above grade, three coats may be necessary. It is well to attempt a third coat to check rate of absorption. If Formula No. 640 is absorbed rapidly, apply a third coat, but if it remains on the surface for thirty seconds or longer the preceding two coats are sufficient. Coverage: 50 square feet per gallon for the three coats.
4. Four coat application: Indicated where it is necessary to protect the surface from strong acids or alkalis. Sufficient coats must be given so that some of Formula No. 640 will remain on the surface.

GUARANTY

We guarantee that our products, if applied according to our directions, will live up to our claims.

FORMULA No. 640 TOXIC for TERMITES, beetles, lice, mites, ants, mildew, fungi, decay, blue stain.

Formula No. 640 Toxic (toxic value equivalent to full strength creosote) is a combination of three different concentrated phenols: Chloro-orthophenyl-phenol, Pentachlorophenol, and Tetrachlorophenol—10% added to our waterproofing Formula No. 640. Termites will not build their tubular runways over, nor come close to Formula No. 640 Toxic. Neither will other insects. Break the chain between the ground and the wood and termites will die. Triphenol treated wood stakes have lasted over eighteen years in termite infested territory. Damp, humid rooms grow fungi. Creameries, laundry rooms, etc. can be waterproofed and fungiproofed at the same time with Formula No. 640 Toxic. Canvas treated with Formula No. 640 Toxic in soil infested with *Chaetomium Globosum* and *Aspergillus Niger* showed no growth at the end of ten days. Used outside or inside. Brown tinted liquid, contains no pigment, colorless when dry. Brush, spray, or dip.

HAYPROC CEMENT PAINT—with Hydrator

A brilliant white pigmented finish for rough concrete, concrete blocks, brick, stucco, etc., walls (not floors). Extremely porous concrete blocks such as some light weight aggregate blocks, or walls with crumbly mortar joints should be given two coats before waterproofing. The hydrator aids curing, increases adhesion and gives a harder finish. Covers from 100 to 125 square yards per hundred pounds.

PYROCYDE

A flameproofing for fabrics. A clear, heavy liquid. Fabrics will char but not burn. Nonpoisonous.

HAYPROC GILSONITE PAINTS

For slate, metal, and concrete roofs, walls, all outside metal: fire escapes, tanks, bridges and machinery. Resists acid and alkali fumes and salt water better than oil paints. Withstands 450 degrees F. Comes in red, green, and black. Made of gilsonite asphalt gums, pitch, oils, and color pigments. Covers 400 square feet per gallon on metal.

TEX

A transparent waterproofing for all textiles such as tents, awnings, tarpaulins, binder canvas, etc. Fungi and mildew resistant (new World War II fungicide). Treats 100 to 200 square feet per gallon.

HCH

HAYNES CEMENT HARDENER

HCH is a pink liquid which hardens and densifies concrete products. It is not for use on natural stone, brick, plaster, or wood—only products made with Portland cement which are 14 days old or older.

Concrete floors disintegrate rapidly when subjected to oils and greases and chip off quickly through the continuous use of steel wheeled hand trucks or other heavy traffic.

To prevent this, the concrete must be hardened, densified, and rendered impervious to the action of oils and water.

Our combination HCH-Formula No. 640 Treatment does this, quickly and economically.

This treatment will give a very hard surfaced floor which extends from $\frac{1}{8}$ to $\frac{1}{4}$ inch below the surface and will protect the floor under ordinary conditions of heavy traffic for years.

Steel wheeled hand trucks, heavy foot traffic, will cause no appreciable dusting or wear, the floor will be brighter in appearance, will be easier to keep clean, water, oil or grease will not penetrate it and even dilute acids will not cause erosion. Note: Strong acids require heavier applications of Formula No. 640 to effectively protect the concrete—ask for our special bulletin on "Acids and Formula No. 640." Concrete vats and tanks will store mineral and vegetable oils satisfactorily with this treatment. The covering capacity of HCH varies from 100 to 200 square feet per gallon—old concrete floors already soaked with oils should be cleaned with Hayproc Oil & Grease Cutter, designed to neutralize oil deposits so they may be hosed away, and the floor left prepared for the HCH-Formula No. 640 Treatment.

HAYPROC FLOOR RESURF

Levels An Outside Walk—Illustrated Below.



HAYPROC FLOOR RESURF

A mastic. Asphaltic emulsion base floor resurfacer. No heat. Dries to a dark gray, also patches ruts, holes and breaks in all kinds of floors, docks, driveways. Mixed with sand, cement and water. In 36 hours it gives a resilient, slip proof, smooth surfaced floor which will withstand heavy traffic and trucking. 15 gallons (mixed as above) will cover 120 square feet $\frac{1}{2}$ " thick. Use with primer.

HAYPROC RESURP—primer for above.

Bonds the Mastic with the floor. For each 55 gal. drum of Resurf use 10 gallons of Resurf.

HAYPROC OIL & GREASE ABSORBENT

Small granules which have a particular affinity for oils and greases, rapidly absorbing them. Has a slight bleaching action. For use on concrete, stone, or wooden floors, removing grease and dirt accumulations no matter how thick.

HAYPROC OIL & GREASE CUTTER

A concentrated liquid which, when diluted with 4 to 10 parts of water, makes an effective solution for removing heavy oils and greases. It is used on concrete or wood floors, walls, metal surfaces, or wherever there is oily dirt. It is non-flammable, odorless, deodorizes and sterilizes, works chemically thus reducing labor. It may be sprayed on machinery. The residue is easily washed away with water. Leaves the surface clean and bright.

HAYPROC PAINT REMOVER

A creamy liquid which rapidly disintegrates oil paint, enamel, and varnish no matter how old. It is non-flammable, works quickly, is odorless, and can be scraped off or washed away with water. Clean up requires no dangerous or expensive solvents.

M-C PAINT REMOVER

Lifts any paint, varnish, lacquer, or synthetic resinous enamel. Harmless to metal or wood. Non-flammable. Safe. Works fast.

HAYPROC ASPHALTIC CONCRETE COATING

Asbestos Fibred foundation coating for application to exterior walls before backfilling. No heating. Keep out moisture.

HAYPROC RUST REMOVER and CLEANER

A mixture of powdered chemicals packed in one pound tubes. Makes three gallons of rust remover solution. (As a cleaner makes 10 gallons). For removing rust stains on masonry surfaces.

HAYPROC KAWKER

Remains pliable for years, stands vibration. Will not shrink nor pull away. Does not bleed or stain. Meets government and architect's specifications. Tung oil base. Finest caulk made. Colors: Natural, gray, red, buff, black, and brown. Specify gun or knife grade.

HAYPROC KAWKER KARTRIDGE

Cartridges made to fit guns. Keeps compound fresh, no bubbles, charges gun quickly, no mess, no waste, better application. Inexperienced men can do a good job. Colors: Natural and Gray. Packed 10 and 25 cartridges to carton. Special colors made up on orders for 500 cartridges or more.

HAYPROC ALL PURPOSE CLEANER

A mixture of three powerful crystalline detergents, one the new Mercol St., a petroleum sulphonate. No filler. Cleans walls, floors, painted surfaces quickly, and economically.

HAYPROC CONCRETE FLOOR ENAMEL

Rubberized synthetic resin base. Glossy hard finish. Withstands heavy traffic. Resists concentrated sulphuric, fuming nitric, and other acids, also water, alcohol, gasoline, oil and caustics. Tile red, light or dark gray, and white. Coverage 450 square feet per gallon. Dries dust free in two hours, is hard enough for light traffic in twelve hours, attains maximum hardness in about forty-eight hours. For all floors and other surfaces.

HAYPROC ALUMINUM PAINT

Highest grade aluminum paint you can buy. Contains tung oil in asphaltic base. Coverage 600 sq. ft. per gal. For metal, wood, concrete, etc.—and our floor resurfacer. Comes in compartment cans.

HAYPROC ALUMINUM FOIL PATCHING CLOTH

A heavy aluminum foil. Pliable. Shaped to any surface. Used like fabric, costs $\frac{1}{2}$. Reflects heat. Use 24" to cover whole roof (lap 2").

HAYPROC ROOF AND METAL PAINT

Black, asphaltic base, non-fibred. Protects all surfaces, iron, tin, wood. Very economical.

HAYPROC ASBESTOS FIBRE ROOF COATING

Waterproofs built up and metal roofs, concrete decks, exterior basement walls, gutters and valleys and composition roofs. Brush on cold. Does not run in summer nor crack when cold. From 10% to 25% better than any other roof coating we have tested. It contains a higher percentage of waterproofing materials which keep the coating pliable, combined with non-oxidizing agents for long life, and a specially selected asbestos fibre, extra long. Hayproc asbestos fibre roof coating is easily applied, penetrates and saturates the old roof leaving a water-tight, tough, coating for protection from the hot sun and torrential rains.

Apply at the rate of two gallons per one hundred square feet for ordinary composition roofing or one and one-half gallons for metal roofs. For badly dried roofs apply a primer coat of HAYPROC PRIMER FOR ROOF COATING, which is non-fibred, to saturate the old felt, and prepare it for the roof coating.

HAYPROC PLASTIC ROOF CEMENT

A black, asphaltic base, asbestos fibre cement of putty consistency ready for trowel. Used for patching large holes, filling seams, flashing side walls, chimneys, sky lights, and lining gutters.

HAYNES PRODUCTS CO.

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